



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,801	06/16/2000	SATOSHI TAKAGI	450106-02263	1353
20999	7590	04/05/2004	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			TRAN, THAI Q	
			ART UNIT	PAPER NUMBER
			2615	
DATE MAILED: 04/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/581,801	TAKAGI ET AL.
	Examiner	Art Unit
	Thai Tran	2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 16 June 2000 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Takakura (US 5,473,479).

Regarding claim 1, Takakura discloses a data processing apparatus (Fig. 4) for packing digital data that has a various length to blocks each of which has a unit length, comprising:

means (recording blocking circuit 5 of Fig. 4, col. 8, lines 16-34) for packing data packets each of which has a variable length to a plurality of first blocks from the beginning thereof and packing an overflow portion of a data packet that is larger than the unit length to a blank portion of the first blocks to which a data block that is smaller than the unit length has been packed; and

means (recording blocking circuit 5 of Fig. 4 generates recording block 5 containing only overflow data, col. 8, lines 25-32) for generating a second block that contains a data packet whose length is 0 and the overflow portion.

Regarding claim 2, Takakura discloses the claimed wherein the second block has the unit length and controls information that represents that the length is 0 and a portion filled with data of a predetermined value (additional information representing the code length of the block disclosed in col. 8, lines 7-12).

Regarding claim 3, Takakura discloses the claimed wherein the first blocks and the second block are selectively handled in a common process (performing by the recording blocking circuit 5 of Fig. 4, col. 8, lines 16-34).

Regarding claim 4, Takakura discloses the claimed wherein the second block contains only information that represents that the length is 0 (additional information representing the code length of the block disclosed in col. 8, lines 7-12).

Method claim 6 is rejected for the same reasons as discussed in the corresponding apparatus claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takakura (US 5,473,479).

Regarding claim 7, Takakura discloses a recording apparatus (Fig. 4) for packing digital data that is input as packets each of which has a variable length to a block having a unit length of an error correction encoding process and encoding the packet block with error correction code that is a product code, comprising:

means (recording blocking circuit 5 of Fig. 4, col. 8, lines 16-34) for packing data packets each of which has a variable length to a plurality of first blocks from the beginning thereof and packing an overflow portion of a data packet that is larger than the unit length to a blank portion of the first blocks to which a data block that is smaller than the unit length has been packed;

means (recording blocking circuit 5 of Fig. 4 generates recording block 5 containing only overflow data, col. 8, lines 25-32) for generating a second block that contains a data packet whose length is 0 and the overflow portion;

record data forming means (error correction coding circuit 6 of Fig. 4, col. 9, lines 8-17) for encoding a data block composed of a plurality of first blocks and a plurality of second blocks with error correction code that is product code ad forming record data; and

recording means (magnetic head 8 of Fig. 4, col. 9, lines 41-43) for recording the record data formed by said record data forming means to a record medium. However, Fig. 4 of Takakura does not specifically disclose that the record data forming means add a synchronous pattern and an ID to each block having the unit length.

Takakura also discloses in another embodiment (Fig. 1) digital recorder has synchronizing signal-ID signal applying circuit 104 of Fig. 1 adds a synchronizing signal and an ID signal to the supplied video signal of provide the same to a modulation circuit 105 (col. 2, lines 31-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the synchronizing signal-ID signal applying circuit 104 of Fig. 1 of Takakura to the recorder of Fig. 4 of Takakura in order to facilitate the reproducing of the recorded video signal.

Regarding claim 8, Takakura discloses the claimed wherein the second block has the unit length and controls information that represents that the length is 0 and a portion filled with data of a predetermined value (additional information representing the code length of the block disclosed in col. 8, lines 7-12).

Regarding claim 9, Takakura discloses the claimed wherein the first blocks and the second block are selectively handled in a common process (performing by the recording blocking circuit 5 of Fig. 4, col. 8, lines 16-34).

Regarding claim 10, Takakura discloses the claimed wherein the second block contains only information that represents that the length is 0 (additional information representing the code length of the block disclosed in col. 8, lines 7-12).

Method claim 12 is rejected for the same reasons as discussed in the corresponding apparatus claim 7.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Isozaki (US 2003/0091339 A1).

Regarding claim 1, Isozaki discloses a data processing apparatus (Fig. 8) for packing digital data that has a various length to blocks each of which has a unit length, comprising:

means (the packing and shuffling portion 107 of Fig. 8, page 11, paragraph #0199) for packing data packets each of which has a variable length to a plurality of first

blocks from the beginning thereof and packing an overflow portion of a data packet that is larger than the unit length to a blank portion of the first blocks to which a data block that is smaller than the unit length has been packed; and

means (the packing and shuffling portion 107 of Fig. 8, page 11, paragraph #0199) for generating a second block that contains a data packet whose length is 0 and the overflow portion.

Regarding claim 2, Isozaki discloses the claimed wherein the second block has the unit length and controls information that represents that the length is 0 and a portion filled with data of a predetermined value (ID, DID, and the length mark disclosed in page 15, paragraphs #0246 and #0251).

Regarding claim 3, Isozaki discloses the claimed wherein the first blocks and the second block are selectively handled in a common process (page 18, paragraph #0293).

Regarding claim 4, Isozaki discloses the claimed wherein the second block contains only information that represents that the length is 0 (ID, DID, and the length mark disclosed in page 15, paragraphs #0246 and #0251).

Regarding claim 5, Isozaki discloses first memory means (main memory 160 having video area 250, an overflow area 251, and an audio area 252 disclosed in page 14, paragraph #0233) having a first area for storing the first blocks and the second block, a second area for storing the overflow portion, and a third area that is different from the first area and the second area;

packing means (packing portion 107a disclosed in page 14, paragraph #0235) for packing the overflow portion that is read from the second area of said first memory means to a first block or a second block that is read from the first area of said first memory means and that is smaller than the unit length in such a manner that the overflow portion is fully packed in the unit length of the first block or the second block;

second memory means (the memory of the outer code encoder 109 disclosed in page 14, paragraph #0236) for storing a block packed in the unit length by said packing means;

outer code encoding means (outer code encoder 109 disclosed in page 14, paragraph #0236) for adding an outer code parity to a block stored in said second memory means and rewriting the resultant block to said second memory; means (the outer code encoder 109 rearranges data and outer code parity in the order for the inner code encoding process and then writes the resultant data to the output area 250 B disclosed in page 14, paragraph #0236) for reading a block to which the outer code parity has been added by said outer code encoding means from said second memory means and writing the block to the third area of said first memory; and

inner code encoding means (the inner code encoder 119 disclosed in page 14, paragraph #0238) for adding an inner code parity to a block that is read from the third area of said second memory.

Method claim 6 is rejected for the same reasons as discussed in the corresponding apparatus claim 1.

Regarding claim 7, Isozaki discloses a recording apparatus (Fig. 8) for packing digital data that is input as packets each of which has a variable length to a block having a unit length of an error correction encoding process and encoding the packet block with error correction code that is a product code, comprising:

means (the packing and shuffling portion 107 of Fig. 8, page 11, paragraph #0199) for packing data packets each of which has a variable length to a plurality of first blocks from the beginning thereof and packing an overflow portion of a data packet that is larger than the unit length to a blank portion of the first blocks to which a data block that is smaller than the unit length has been packed;

means (the packing and shuffling portion 107 of Fig. 8, page 11, paragraph #0199) for generating a second block that contains a data packet whose length is 0 and the overflow portion;

record data forming means (outer code encoder 109, ID adding portion 118, inner encoder 119, and synchronization adding portion 120 of Fig. 13, page 14, paragraphs #0236 and 0238) for encoding a data block composed of a plurality of first blocks and a plurality of second blocks with error correction code that is product code, adding a synchronous pattern and an ID to each block having the unit length, and forming record data; and

recording means (recording amplifier 121 of Fig. 13, page 14, paragraph #0238) for recording the record data formed by said record data forming means to a record medium.

Regarding claim 8, Isozaki discloses the claimed wherein the second block has the unit length and controls information that represents that the length is 0 and a portion filled with data of a predetermined value (ID, DID, and the length mark disclosed in page 15, paragraphs #0246 and #0251).

Regarding claim 9, Isozaki discloses the claimed wherein the first blocks and the second block are selectively handled in a common process (page 18, paragraph #0293).

Regarding claim 10, Isozaki discloses the claimed wherein the second block contains only information that represents that the length is 0 (ID, DID, and the length mark disclosed in page 15, paragraphs #0246 and #0251).

Regarding claim 11, Isozaki discloses first memory means (main memory 160 having video area 250, an overflow area 251, and an audio area 252 disclosed in page 14, paragraph #0233) having a first area for storing the first blocks and the second block, a second area for storing the overflow portion, and a third area that is different from the first area and the second area;

packing means (packing portion 107a disclosed in page 14, paragraph #0235) for packing the overflow portion that is read from the second area of said first memory means to a first block or a second block that is read from the first area of said first memory means and that is smaller than the unit length in such a manner that the overflow portion is fully packed in the unit length of the first block or the second block;

second memory means (the memory of the outer code encoder 109 disclosed in page 14, paragraph #0236) for storing a block packed in the unit length by said packing means;

outer code encoding means (outer code encoder 109 disclosed in page 14, paragraph #0236) for adding an outer code parity to a block stored in said second memory means and rewriting the resultant block to said second memory; means (the outer code encoder 109 rearranges data and outer code parity in the order for the inner code encoding process and then writes the resultant data to the output area 250 B disclosed in page 14, paragraph #0236) for reading a block to which the outer code parity has been added by said outer code encoding means from said second memory means and writing the block to the third area of said first memory; and

inner code encoding means (the inner code encoder 119 disclosed in page 14, paragraph #0238) for adding an inner code parity to a block that is read from the third area of said second memory.

Method claim 12 is rejected for the same reasons as discussed in the corresponding apparatus claim 7.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

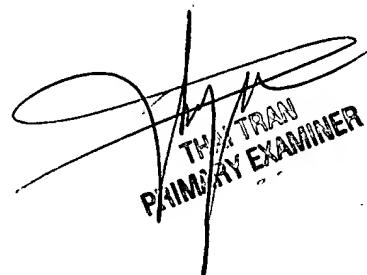
The cited references relate to digital video recorder.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (703) 305-4725. The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ



THANH TRAN
PRIMARY EXAMINER